needed, the digger locating them by probing the soil with a pointed stick. The patches are small and are always near the village.

Sugar cane grows in isolated clumps in or near the villages. I saw no plantations. The stalks are chewed, like candy, and bundles of the leaves are sometimes used as torches. The juice is also extracted by crushing the cane between wooden rollers. This is allowed to ferment and is then drunk as beer or distilled into rum. No sugar or syrup is made.

Castor oil plants are often to be seen growing near the villages and a few of them are sometimes planted in the crop. The oil is extracted with a crude press, like that used for kunay. It is used in hair dressing and is often a part of charms. Whole beans are also used to make a sort of taper or night light.

Small and extremely hot red peppers are used as a condiment. They grow wild on old village sites and abandoned fields.

The Tonala believe that all their crops are indigenous. A very careful investigation failed to reveal any traditions of the introduction of maize, manioc or tobacco.

DOMESTIC ANIMALS

The Tonala originally had the following domestic animals: dogs (*mulube*), cattle (*mulu*), goats (*bengi*), chickens (*akulu*), and a very large duck with dark plumage and red warties (*dukutu*). Sheep, cats, ordinary ducks and geese and turkeys have all been introduced within the historic period, but are of little economic importance. In the drier and less heavily forested parts of the Tonala territory guinea fowl have been semi-domesticated since ancient times. Eggs are taken from the nests of the wild birds and the young hatched and reared by hens. They are fed on a special diet of termite eggs and larvae. Apparently guinea fowl will not breed in captivity and are usually killed as soon as they become full grown.

The native dog is almost extinct, due to repeated crossing with other breeds. It stands about 10 inches at the shoulder and is mid yellowish brown or black, with white under parts. The coat is medium long, fine and glossy. The tail is bushy and is carried low. The head is wide between the ears, with a muzzle of medium length and strong jaws. The ears are rather large, pointed, and erect. The animal appears healthy in its movements and rarely barks.

Dogs are used to trail wild pig and to bring the animal to bay so that it can be speared by the hunters. They are never used

328 bowl has four equally spaced legs which are pierced vertically. Slender ropes of equal length pass through these and are tied together above the bowl, where a single long rope is attached. Sometimes the bowl is encased in matting, as a precaution against breakage. A few specimens are provided with flat wooden covers which slide on the four small ropes. The honey bowl is hung from a limb beside the hive and lowered to the ground when full.

357 The comb is taken to the village, where it is put into a sack of coarse matting (Fig. 4, b) and the honey squeezed out by means of a press made from a split log (Fig. 4, c). The sack is inserted between the halves and the protruding ends of the press wrapped with a rope. A short stick is then passed through the rope and pressure exerted by twisting. The solid end of the press is fastened to a post or the corner of a house. The honey is collected in a bowl below (Fig. 4, f).

After pressing, the honey is strained through cloth or matting and stored in deep, oval wooden bowls (Fig. 4, e). The sides of the bowl are cut from a single piece. The bottom is a separate piece, accurately fitted, sewn, and caulked in place with beeswax or gum. There is a tight-fitting lid. The honey bowls of the Todas may are often elaborately carved. Identical honey bowls are used by the Badagas and Irulars, but are rare or lacking in other areas.

• 343 Honey is considered best after it has begun to thicken and crystallize and it is usually kept for some weeks or months before being used. It is used for preserving other foods and also alone, like sweets. Much of it is employed in the manufacture of beverages ("honey beer") and rum.

327 After the honey has been pressed out, the residue is boiled and strained to collect the wax. This is poured into shallow bowls, where it solidifies. Most of the wax is exported. The Todas themselves employ a little of it for coating bow-cases to make them airtight, for cementing the laminae of wooden bows, etc., but it is not important in their economy.

WILD VEGETABLE FOODS

332 The Tamils are familiar with a great variety of edible wild roots and fruits. These are gathered in their season, but are of little importance except in times of food shortage. At such they afford a little variety to the standard diet of rice and boiled greens. The principal wild fruits are the vavalangi, nanangu, nandangam and ula. Wild roots include the nuthina, arrivarai, vanilai, valaikki, kalikku, pillaipillu, and kelu.

of plants. Thick stews of beans or ground nuts are the commonest accompaniment. Sweet potatoes are also eaten with rice, but mutton rarely is, because it is too tasteless.

Eggs, meat and fish are considered luxuries. Eggs are always boiled. Large fish are allowed to boil dry and then browned in their own grease. Meat is usually boiled, the broth forming an important part of the meal. Iron meat hooks with ornamental handles are used to remove it from the pot (Fig. 5, g). Meat may also be cut into thin steaks and broiled over a bed of coals. Iron toasting forks with three, five or seven tines are used for this (Fig. 5, h, j). At the present time, broiling is not popular, partly because much of the fat is lost and partly because of the extreme toughness of the native beef.

The only materials used for seasoning are potash, salt and chillies. The potash is a substitute for salt and now that the latter has become cheap and plentiful it is only used for variety. The natives say that it must be taken sparingly, as it is bad for the digestion. Potash is made by burning the roots of a certain rush, mixing the ashes with water, and straining off the liquor. The strainers are of matting, triangular at the rim and tapering to a point (Fig. 6, a). The liquor is put in shallow, wooden bowls and allowed to evaporate. The potash is pale grey and granular and is readily crumbled with the fingers.

Salt has always been obtained in trade. Formerly it came from the east coast, where the natives made it by evaporating sea water. It brought a high price locally and Tamala who left their territory to serve as labourers would bring back as much of it as they could. Even now it has an exaggerated value in the eyes of the natives. Traders told me that a handful of salt given with a purchase would delight them more than a gift of three or four times its real value.

The native salt comes in large, creamy white crystals. It is somewhat coarser than that we use in making ice cream. It often contains earth and other impurities and the Tamala dissolve it, pass it through strainers like those used in potash making, and then recrystallize it. It is kept in small gourds, joints of bamboo, or little packs of cloth or matting.

The salt has to be crushed before use and every household has one or more small wooden mortars for the purpose. These mortars are commonly shaped like an hourglass and have a tight-fitting cover (Fig. 6, c). Sometimes two mortars are joined side by side, one being used for salt and the other for chillies (Fig. 6, d). These

are a few other forms and one rectangular salt mortar, with a handle, were collected (Fig. 4, b).

The native chilies are small, rarely over an inch in length, and bright red. They are extremely hot. The natives pound them up, seeds and all, in mortars similar to those used for salt. They are usually taken fresh from the bushes, which seem to be in bearing most of the year, but are occasionally dried.

Salt and chilies are sprinkled over the food after it has been served, each person seasoning his portion according to his taste.

UTENSILS

In describing Tanala utensils it is necessary to distinguish between the Zafimaniry gens, with its immediate neighbors, and the other members of the tribe. The Zafimaniry, who are recent immigrants from the plateau, resemble the Betsileo in their extensive use of wooden utensils and drinking horns. These have been diffused to the gentes in contact with them. The other Tanala gentes rarely use wooden utensils and have no drinking horns. In this respect they resemble the tribes of the east coast.

It seems curious that in a heavily forested region the only group to use wooden utensils should be one which has come from an area in which wood is much less abundant, but there are other anomalies as well. None of the Tanala employ bark utensils, although there is plenty of good material available. Gourds, which grow well in the region, are very little used. The Menalva have practically no gourd utensils. The Ikongo use gourds for milk bottles, but this is probably in imitation of the Bara.

All the Tanala, except the Zafimaniry, serve their boiled rice on small square mats or in shallow rectangular baskets (Fig. 6, f). The basket or mat is first covered with a layer of green leaves. Liquids are served in short joints of bamboo or in leaf dishes. These dishes are made from pandanus or other long, broad leaves which are folded to make an oblong receptacle. Usually the ends of the leaf are simply turned up and tied (Fig. 6, h). There are a few well-made dishes of pandanus in which the ends are cut short, folded and sewn together. A narrow splint of bamboo is used to reinforce the end (Fig. 6, g). Spoons are made from strips of leaf, folded and tied (Fig. 6, j). All except the sewn dishes are made from green leaves and renewed at every meal.

Large wooden ladles are used by all the Tanala for dishing food from the pot (Fig. 7, d). Some of those used at feasts and sacrifices